SCALING UP HIV CARE AND TREATMENT

OVERVIEW

Treatment for HIV, also known as antiretroviral therapy (ART), plays a comprehensive role in the AIDS response. By reducing the HIV viral load (VL) to undetectable levels in blood and other bodily fluids, ART significantly improves the immune system of people living with HIV, prevents sexual transmission, and markedly reduces perinatal transmission. This, in turn, decreases new infections and AIDS-related deaths. Thus, increasing access to high-quality ART is a vital strategy to achieve and sustain epidemic control.

In 2003, when President George W. Bush announced the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), an estimated 50,000 people were receiving treatment for HIV in sub-Saharan Africa. The Joint United Nations Programme on HIV/AIDS (UNAIDS) reported that, as of December 2015, 17 million people were accessing ART globally. Of these 17 million, PEPFAR was supporting 9.5 million, more than half of all those on ART globally. Of those supported by PEPFAR, the U.S. Centers for Disease Control and Prevention (CDC) and its implementing partners were providing direct site support or technical assistance (TA) for 5.8 million HIV-infected people on treatment, which is about 1 out of every 3 people on ART worldwide. Since 2003, the HIV Care and Treatment Branch in the Division of Global HIV & TB has been the principal CDC ART program advisory group for PEPFAR and CDC.

The key goals of ART programs are quantity, quality, efficiency, sustainability, transition, and impact. Quantity means that 90 percent of HIV-infected people receive sustained ART. Quality means that 90 percent of people on ART have viral suppression. Efficiency means that there is a focus on high-burden, sub-national units and key and priority populations. Sustainability means that each country is willing and able to provide full ART coverage. Transition means that each country oversees their national ART program with little or no U.S. Government (USG) support. Impact means that the ART program results in epidemic control.

Current programmatic priorities include: placing every person with HIV on ART, also known as "Treat All"; using a variety of ways to get medicine to patients, also known as "alternate service delivery models"; performing routine quality checks of ART facilities through the Site Improvement through Monitoring System (SIMS); checking patients' blood nationwide to make sure the virus is not detectable while they are on ART through VL monitoring; having a national HIV drug resistance (HIVDR) surveillance system in place to watch for any signs that HIV has mutated and become resistant to the ART regimens being used; and making sure that the most vulnerable populations are obtaining ART through increased focus on providing ART for key and priority populations. Treat All and alternative and differential service delivery models of care signal an unprecedented opportunity to preserve health, reduce transmission, save lives, and simplify the public health approach to treatment.

ACCOMPLISHMENTS / RESULTS

To implement Treat All, we have developed a template evaluation protocol in collaboration with the Monitoring Evaluation and Data Analytics Branch, supported Kenya, Namibia, and Nigeria in developing protocols to evaluate Treat All, and developed a tool to monitor national implementation progress, including challenges and facilitators.

To support alternate service delivery models, since July 2015 we have coordinated monthly conference calls with PEPFAR-supported countries to share knowledge of and experiences in developing differentiated models of care. CDC has also provided in-country TA to Kenya, Namibia, Tanzania, Zambia, Rwanda, Cameroon, Swaziland, and Côte d'Ivoire.

To operationalize SIMS, we helped revise SIMS 1.0 and developed additional guiding documents and training materials for SIMS 2.0, assisted with the roll-out of SIMS 2.0 to all PEPFAR Operating Units through workshops in Bangkok and Johannesburg, provided oversight and guidance to CDC country teams on the transition from SIMS 1.0 to SIMS 2.0; and helped develop the SIMS-MER Crosswalk and the SIMS-MER Linkage Framework to facilitate analysis and improve integration of SIMS and MER data.

To support VL scale up, in close collaboration with other CDC branches, we developed a clinical site checklist/scorecard, revised clinical training modules, developed clinical standard operating procedures, developed a VL Monitoring and Evaluation framework, and completed a VL Service Quality Assessment in Kenya. In addition, plans are underway for a Service Quality Assessment in Uganda. We conducted a regional VL workshop in May 2016 for seven countries in Southeast Asia and in September 2016 for 11 countries in Africa. We completed interagency temporary duty assignments to all six priority VL scale-up countries - Kenya, Mozambique, Malawi, Tanzania, Uganda, and Swaziland - to improve VL capacity, efficiency, and quality. We also provided TA to Vietnam, Cambodia, Angola, Burma, South Sudan, and Cameroon to support VL scale-up efforts.

To support instituting national HIVDR surveillance, we have supported successful pilots of cross-sectional surveys of acquired drug resistance in Kenya, Tanzania, and South Africa (KwaZulu-Natal) in both adults and children, and provided capacity building for data analysis. We participated in revising the World Health Organization's (WHO) HIVDR strategy and updating WHO's HIVDR surveillance database. We also helped establish CDC's HIVDR surveillance database. In addition, CDC provided financial and TA for surveys in 17 countries. We are also helping to coordinate the VL monitoring scale-up strategy and to pilot case-based surveillance of HIVDR in people with VL >1000 copies/ml.

In order to focus on the most-vulnerable populations, also known as "key and priority populations", the Priority Population Treatment Team has recently conducted learning and TA visits to Ethiopia, Kenya, South Africa, and Uganda. The most-vulnerable populations living with HIV are different in each country. The Priority Population Treatment Team developed the strategies to scale up ART for these groups in conjunction with CDC in-country teams. The team also conducted site visits to obtain first-hand experience of service delivery models such as peer-led outreach services; to meet a range of KP/PP implementing partners; to learn best practices; to review current treatment activities targeting vulnerable groups, and explore opportunities to support and improve treatment activities.

OTHER ACCOMPLISHMENTS

To provide support for clinical staff at distant sites, we established the Namibia Project ECHO, a distance mentoring program, the first for HIV in Africa. This program consisted of a hub and 10 spoke ART sites. Thirty-six weekly sessions have been completed and 10 additional sites have joined. The sessions have averaged 72 participants per week and provided over 1600 training hours. Phased implementation of the HIV Project ECHO programs is underway in five additional countries, including Kenya, Kazakhstan, Kyrgyzstan, Cameroon, and Cote d'Ivoire.

To ensure ART program quality, we have been conducting quality improvement training sessions for the past four years. These sessions have included more than 140 USG and Ministry of Health staff from 14 countries, including Angola, Ethiopia, Kenya, Namibia, South Africa, Tanzania, Cameroon, Rwanda, DRC, Malawi, Swaziland, Uganda, Nigeria, and Zambia. Over the past year, we expanded the training to seven additional countries – Botswana, Cameroon, Ethiopia, South Africa, Kenya, Tanzania, South Sudan, and Malawi.

To assist PEPFAR agency staff in reviewing ART data regularly and providing evidence-based input to our in-country teams, we have produced the following: a fact sheet that provides key contextual data for the PEPFAR Oversight Accountability Response Team and Country Operations Plan preparation; Pivot Maps, a set of four standard maps to be used in conjunction with the fact sheet; the budget and trends tool that provides trends across PEPFAR indicators and budgets, including references to key national indicators and UNAIDS data, and the Models of Service Delivery Survey Instrument.

Since 2007, the branch has prepared 19 approved protocols in nine countries, published 48 manuscripts and abstracts, published 21 peer-reviewed papers, and presented 27 conference presentations. In Swaziland, the ART decentralization model led to reduced loss to follow up and is now a national guideline. This study was presented at the 2015 Conference on Retroviruses and Opportunistic Infections and nominated for the 2016 Shepard Award.

FUTURE EFFORTS

CDC, in collaboration with our partners, will continue to support countries in achieving UNAIDS' second and third "90 target" namely, that 90 percent of people who are HIV positive are on ART and 90 percent of those who are on ART are virally suppressed. This support will involve evaluating quarterly care and treatment data from countries and making recommendations based on these evaluations as part of the PEPFAR Oversight Accountability Response Team process. We will also provide TA to countries as needed.

BENEFITS OF OUR WORK

By achieving the UNAIDS' 90-90-90 goals, we hope to control the epidemic, which means new HIV infections fall below the number of deaths of people with HIV. This will be done by pivoting to a data-driven approach that strategically targets geographic areas and populations where we can achieve the most impact for our investments.